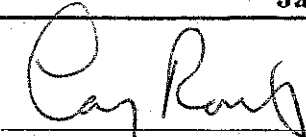


Meeting Minutes Transmittal/Approval  
Unit Managers' Meeting  
200 Area Groundwater and Source Operable Units  
1200 Jadwin Avenue, Richland, Washington  
January 16, 2006

0009255

APPROVAL:



Larry Romine, 200 Area Unit Manager, DOE/RL

Date:

4-10-06

APPROVAL:



Arlene Tortoso, 200 Area Assistant Manager, DOE/RL

Date:

4/10/06

APPROVAL:

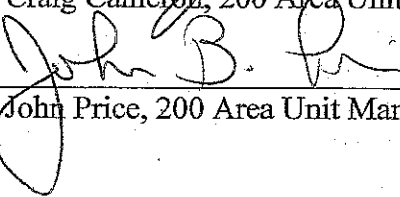


Craig Cameron, 200 Area Unit Manager, EPA

Date:

4/3/06

APPROVAL:



John Price, 200 Area Unit Manager, Ecology

Date:

4/3/2006

RECEIVED

APR 12 2006

EDMC

Meeting Minutes are attached. Minutes are comprised of the following:

Attachment 1	Attendance Record
Attachment 2	Agenda
Attachment 3	Groundwater Operable Units Status
Attachment 4	Groundwater Operable Units Status Figures
Attachment 5	Source Operable Units and Facilities Status
Attachment 6	Source Operable Units and Facilities Figures
Attachment 7	Agreements and Issue Resolution Meeting
Attachment 8	TPA-CN-146 for 200-PW-1, -PW-3 and -PW-6
Attachment 9	TPA-CN-147 for 200-MW-1 OU
Attachment 10	Action Item List

200 Area Unit Managers Status Meeting  
January 19, 2006

Please print clearly and use black ink

PRINTED NAME	ORGANIZATION	O.U. ROLE	TELEPHONE
Dib Goswami	Ecology	Sitewide	372-7902
Neannette Hyatt	FH	Env. Protection	376-7923
Gloria Cummings	FH	EP	372-2484
Steuery Simon	OREGON		(541) 9630853
Rob PIRRO	FH	TOA	373-3285
Mark Byrnes	FH	Task Lead	373-3996
Lance Williams	FH	Waste Sites	372-3550
Virginia Rohay	FH	200-PW-1	373-3803
John Winterholder	FH	Env	372-8144
Rod Lobos	EPA		
Dennis Faulk	SDA		
Stuart Luttrell	PNNL	GW Mon	376-6023
JB Baker	FH	GO	373-8304
David Vanni	ECY	Permitted	372-7930
Ang Plans	FH	BP-STL	373-3907
Craig Cameron	EPA		376-8665
Arlene Tortoso	DOE	200-Area GW	373-9631
Zelma Jackson	Ecology	200-AREA	372-7910
Lanny Dusek	FH	200-Area	438-1756
Brian Chabon	KL	GW	373-8135

**PRINTED NAME**

## ORGANIZATION

## O.U. ROLE

TELEPHONE

[illegible]

# **200 AREA UNIT MANAGERS' MEETING AGENDA**

1200 Jadwin/Rm 1-C1  
January 19, 2006

## **GROUNDWATER OPERABLE UNITS STATUS** (8:30-9:15)

## **SOURCE OPERABLE UNITS AND FACILITIES STATUS** (9:15-9:45)

## **ISSUE RESOLUTION MEETING** (10:00-11:30)

- (See Issues List)

### **General**

- Outstanding Action Items
- Open for Regulatory Topics or Action Items
  - TPA Change Package Approvals

## **200 AREA UNIT MANAGERS' MEETING GROUNDWATER OPERABLE UNITS STATUS**

1200 Jadwin/Rm 1-C1

January 19, 2006

### **GROUNDWATER OPERABLE UNITS STATUS**

#### **200-UP-1 OU**

- Rebound Study (Attachment 4, Figures 1-4):
  - Study started January 26.
  - Tc-99 and uranium concentrations remain below interim remedial action objectives in all monitoring wells.
  - We will be meeting with Ecology January 25, 2006, to discuss rebound study results.
- RI/FS Work Plan:
  - One of the six UP-1 wells (UP11) has been installed. A second well (UP2) has now reached total depth.
- RI Report:
  - On hold since Ecology is requiring 2 years of analytical data from the 12 new wells be included in the RI Report.
- Float table is on hold pending completion of Tri-Party discussions on M-15 milestones.

#### **200-ZP-1 OU**

- Remediation Treatment Status:
  - Between October 1 and January 1, 2006 the 200-ZP-1 pump-and-treat system our average pumping rate was 201 gpm (Attachment 4, Figure 5).
  - Seven of the nine extraction wells are currently online. We are currently pumping at ~221 gpm. The two wells that are offline will be brought back on line next week. They have spend around 200 hours working on this the past couple of weeks.
- DNAPL Investigation Status:
  - The DOE-RL contract for FH to assist Vista Engineering in hooking up well 299-W15-6 to the 200-ZP-1 treatment system has just today been returned to DOE-RL. We should be ready to start in the next week or so.
  - Vista is still waiting for loading testing on Z-9 cover prior to perform thermal measurements beneath cover.

- Science & Technology
  - PNNL noted that they will be conducting a pump back tracer test at 200-ZP-1 as described in a test plan provided last year. They will report the results in a future UMM.
- New Well Status:
  - Currently scheduled to drill 3 new wells in March 2006 and 3 new wells in FY2007 (if needed) to help define extent of deep CCL4 contamination detected in vicinity of Old Laundry Facility and T Plant.
- RI/FS Status:
  - Remedial Design report has been updated and is on its way over to DOE-RL.
  - RI Report internal draft will be done in 2 weeks. A small amount (.18%) of the HEIS data was recorded as zero in the early 1980's.
  - Feasibility Study/Proposed Plan is scheduled to begin March 6, 2006.
  - FH held a meeting with DOE-RL and Rick Dinicola (USGS) on January 9, 2006 to discuss the viability of running a treatability study using "*Enhanced Insitu Bioremediation*", DOE-RL concluded that there is no need to run any treatability studies at this time. EPA clarified that they did not see bioremediation as a viable alternative.
- Tc-99 Investigation Status:
  - The initial draft of the DQO summary report is being revised based on the initial review by the FH-PNNL-CHG DQO technical team.
  - Well 299-W11-45 (C4948) ("T-2") is being completed.
  - Well C4990 (T-3) at 90 feet

#### 200-PO-1 OU

- SAP:
  - The Sampling and Analysis Plan was transmitted to Ecology - waiting on approval. Ecology will send a place holder letter.
- DQO Report:
  - On hold. Ecology waiting on legal input to determine regulatory path forward.

#### 200-BP-5 OU

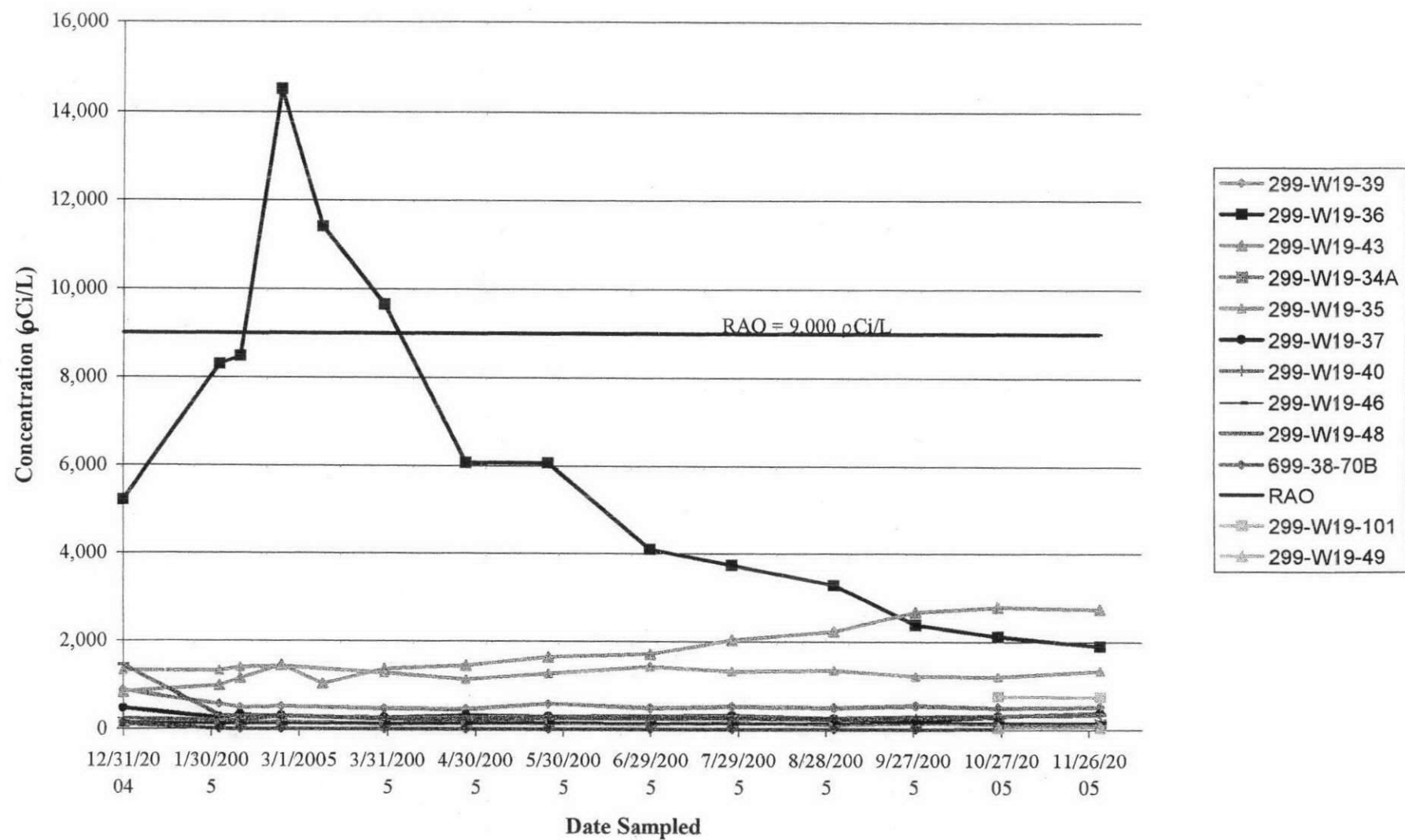
- DQO Report:
  - The draft DQO report is approximately 65% completed.
    - Brainstorming session with the contractors was completed January 4<sup>th</sup>, 2006.
  - Internal review is planned starting February 13, 2006.
    - Two weeks are planned for review and two weeks for comment resolution.
  - The DQO is scheduled to be sent for review by the stake holders March 20<sup>th</sup>.

- SAP:
  - Plan to drill three monitoring wells late this spring. Will initiate drilling SAP in February after completion of the draft DQO
- New Wells:
  - Plan to drill three monitoring wells late this spring.
    - Two wells to define the uranium plume located to the northwest of the BY tank farm and one well to define contamination in the Rattlesnake Ridge confined aquifer upgradient of the 299-E33-12 well.
- Modeling:
  - The geostatistical model for BP-5 is being delayed while new modeling refinements are underway. It is believed that a geostatistical model completed in FY07 or FY08 would be more relevant once inventories are better defined by well placement and sampling through the DQO.
- Science & Technology
  - A discussion was held on the status of calibrating High Resolution Resistivity (HRR) data with well data. Arlene Tortoso took an action to find out what DOE-ORP has found in their investigations. It was noted that the planned 216-A-4 borehole could provide the next opportunity to ground truth the HRR data.

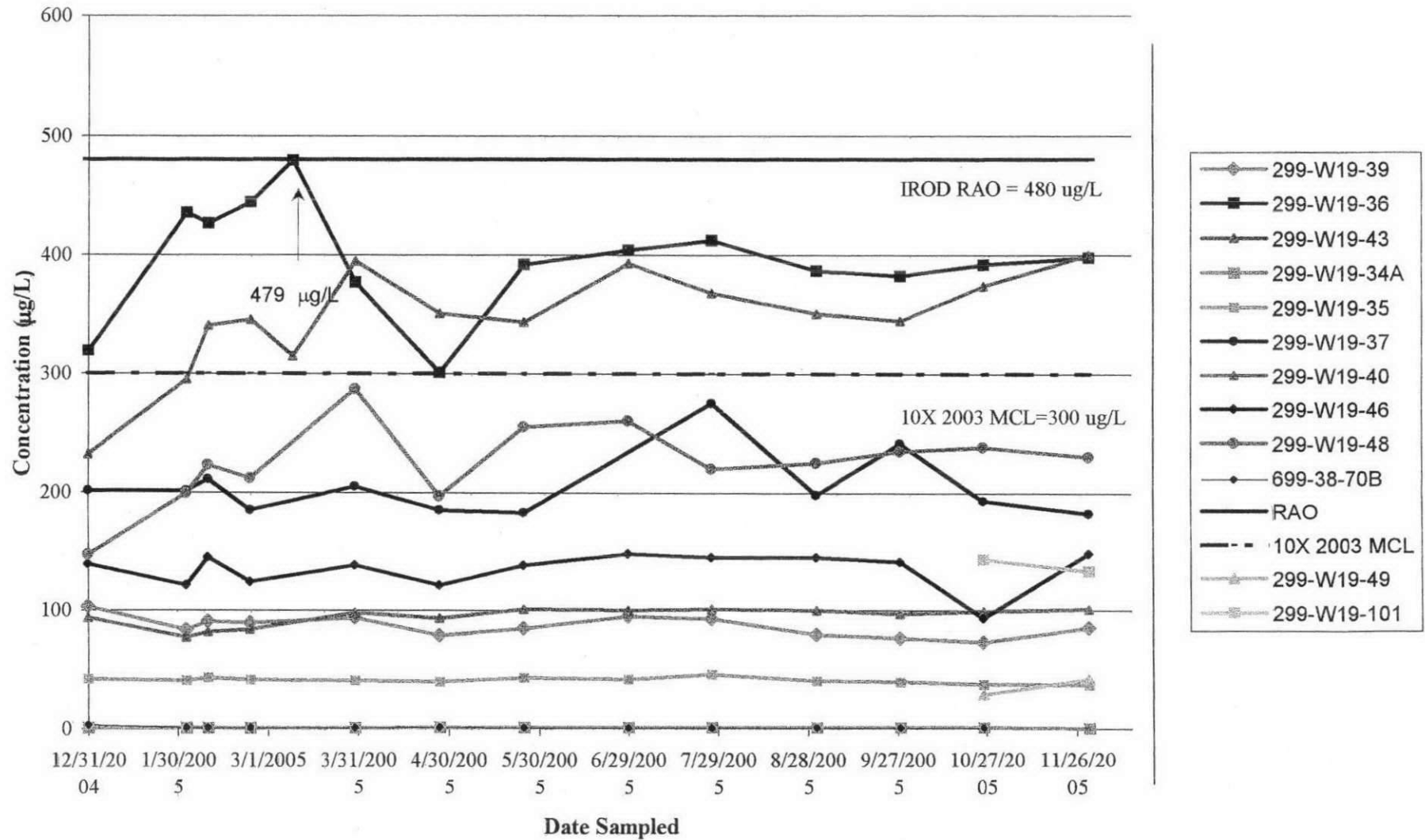
#### **200-PW-1 (200-ZP-2) OU**

- Soil Vapor Extraction System (SVE):
  - The system was shutdown October 18, 2005 for the winter.
- The passive system remains operational.
- Monthly monitoring (Attachment 4, Figures 6-8)
  - Comparison of Maximum Carbon Tetrachloride Rebound Concentrations.
  - Monthly Carbon Tetrachloride Concentrations for monitoring wells update.
  - Soil Gas Vapor Concentrations at passive wells update.

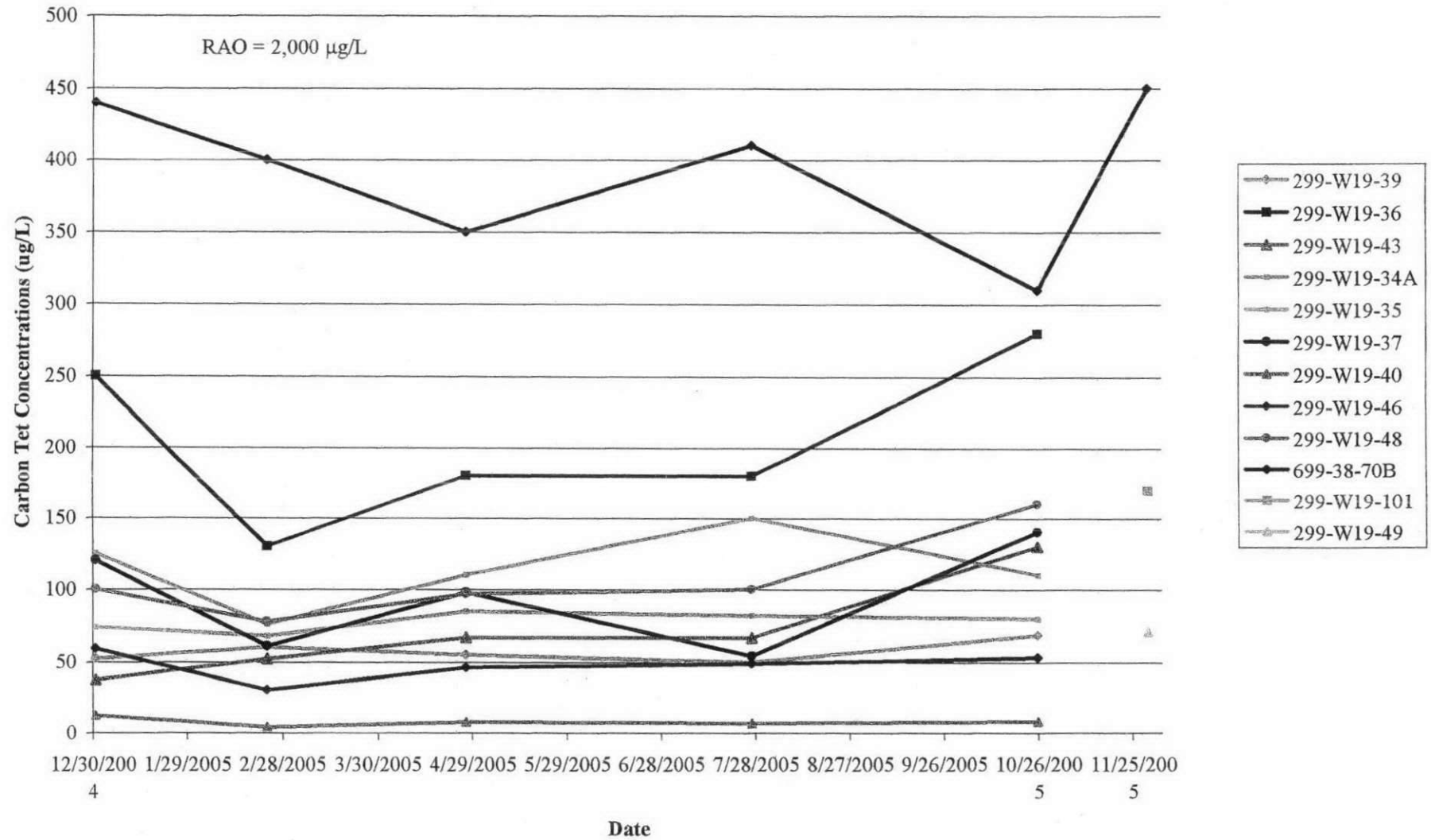
# 200-UP-1 Rebound Study, Technetium-99 (pCi/L)



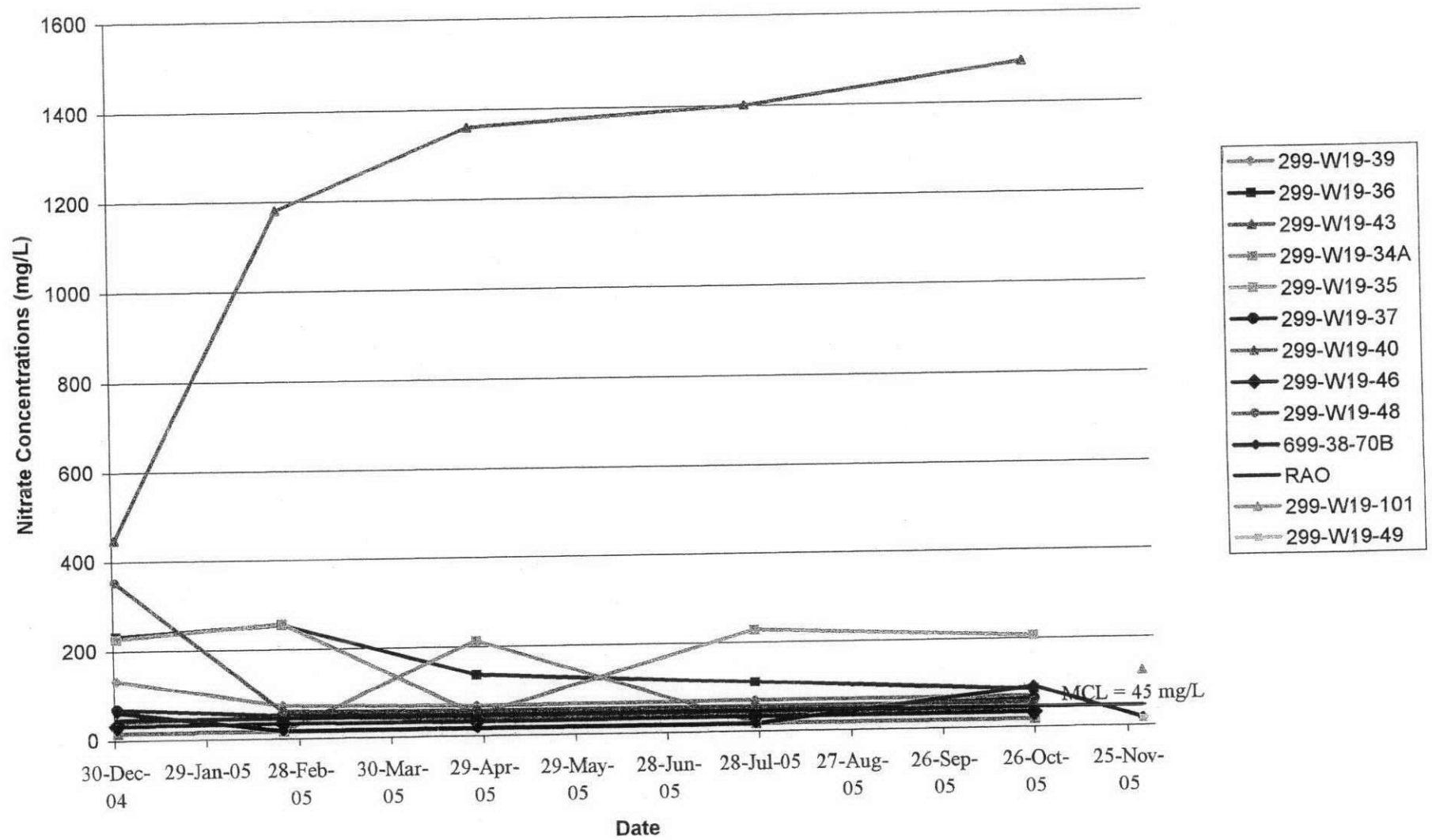
# 200-UP-1 Rebound Study, Uranium Concentrations



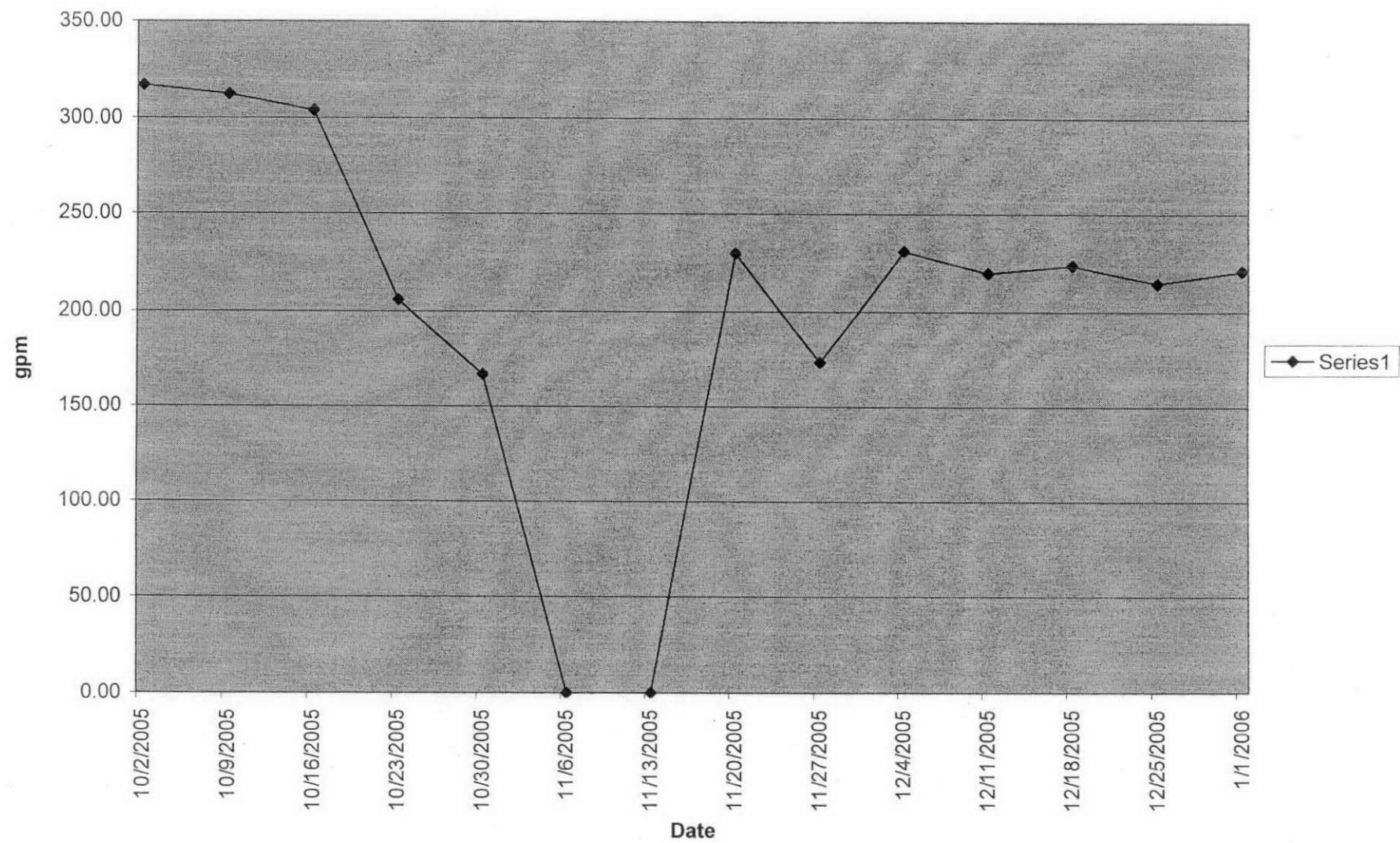
# Carbon Tetrachloride Rebound Study, 200-UP-1



# Nitrate - Rebound Study 200-UP-1



200-ZP-1 Pump-And-Treat Performance



Comparison of Maximum Carbon Tetrachloride Rebound Concentrations  
Monitored at 200-PW-1 Soil Vapor Extraction Sites  
FY 2001 - FY 2006

Attachment 4, Figure 6

200-PW-1 (200-25-2)	Location	Site	July 2001 - June 2002 Maximum Rebound of Carbon Tetrachloride (ppmv)	July 2002 - September 2003 Maximum Rebound of Carbon Tetrachloride (ppmv)	July 2002 (Z-9) or October 2003 (Z-1A) - March 2004 Maximum Rebound of Carbon Tetrachloride (ppmv)	July 2002 (Z-9) or April 2004 (Z-1A) - September 2004 Maximum Rebound of Carbon Tetrachloride (ppmv)	October 2004 - June 2005 Maximum Rebound of Carbon Tetrachloride (ppmv)	July 2005 - December 2005 Maximum Rebound of Carbon Tetrachloride (ppmv)
79-09/5 ft	Z-1A							
79-11/5 ft	Z-1A							
86-05/5 ft	Z-9							
86-05-01/5 ft	Z-9							
86-06/5 ft	Z-9							
87-06/5 ft	Z-1A							
87-09/5 ft	Z-1A							
94-02/5 ft	Z-9							
95-11/5 ft	Z-9							
95-12/5 ft	Z-9							
95-14/5 ft	Z-9							
CPT-13A/5 ft	Z-1A							
CPT-16/10 ft	Z-9		3.2	6				
CPT-17/10 ft	Z-9		1.4	6	8.0	21	9.9	27
CPT-18/15 ft	Z-9		3.4	10	2.4	21	2.5	27
CPT-4A/25 ft	Z-1A		2.6	12			2.4	0
CPT-4E/25 ft	Z-1A		1.1	6	2.6	21	4.4	5
CPT-31/25 ft	Z-1A							
CPT-32/25 ft	Z-1A		13.0	12			8.6	9
CPT-30/25 ft	Z-1A		2.9	12	0	6	1.8	9
CPT-13A/30 ft	Z-1A		2.9	12	2	6	8.3	9
CPT-7A/32 ft	Z-1A		5.6	12	9.8	21	4.4	5
CPT-27/33 ft	Z-9		1.3	6	2.7	27	8.4	9
CPT-1A/36 ft	Z-1A		11.3	12	18.3	6	14.0	9
CPT-28/40 ft	Z-9						5.4	0
CPT-35/40 ft	Z-1A		2.3	12			3.9	9
CPT-34/40 ft	Z-1A		2.2	12			3.0	9
CPT-21A/45 ft	Z-9						7.9	0
W15-220ST/52 ft	Z-9		4.5	1				
CPT-8A/60 ft	Z-9		46.3	6	35.9	21	32.4	5
CPT-28/60 ft	Z-9		55.5	6			88.3	0
CPT-C3672/61 ft	Z-1A						19.5	9
CPT-16/65 ft	Z-9		not measured				6.7	5
CPT-21A/65 ft	Z-9		133	6	150	21	170	0
CPT-1A/68 ft	Z-1A		5.5	12			13.7	9
CPT-30/68 ft	Z-1A							
CPT-13A/70 ft	Z-1A							
CPT-24/70 ft	Z-1A		7.7	12	4.7	15	9.1	27
W15-218SST/70 ft	Z-9				1.9	1	5.7	22
CPT-4A/75 ft	Z-1A		7.1	3			8.3	27
CPT-18/75 ft	Z-9				4.5	15		
CPT-31/76 ft	Z-1A							
CPT-33/80 ft	Z-1A							
W15-82/83 ft	Z-9		66.7	6	85.8	15	85.8	27
CPT-21A/86 ft	Z-9		186	6	206	15	244	27
CPT-34/86 ft	Z-1A							
W15-89U/86 ft	Z-9				1.6	2		
W15-218SST/86 ft	Z-9				295	15		
CPT-28/87 ft	Z-1A		226	6	258	21	258	27
CPT-4B/90 ft	Z-1A		3.2	10				
CPT-1A/91 ft	Z-1A		10.7	10				
CPT-4A/91 ft	Z-1A		7.5	2				
CPT-8A/91 ft	Z-9		74.3	6				
W15-85/91 ft	Z-9							
W15-252SST/100 ft	Z-1A							
W15-152/101 ft	Z-1A		25.7	12	20.7	6	12.4	6
W15-8U/103 ft	Z-1A							
CPT-4E/103 ft	Z-1A		16.1	12				
W15-87/105 ft	Z-1A		287	12	243	6	266	6
CPT-4E/109 ft	Z-1A							
W15-163/109 ft	Z-1A		278	12	326	6	205	6
W15-217/114 ft	Z-9		63.6	6	444	15	458	21
CPT-24/118 ft	Z-9				27.5	3	15.3	27
W15-220SST/118 ft	Z-9						26.0	27
W15-138U/120 ft	Z-1A		163	3				
W15-218SST/130 ft	Z-9				23.1	1	0	22
W15-249/130 ft	Z-1A		186	12	46.3	6	41.0	6
W15-249/131 ft	Z-1A		306	12	182	6	180	6
W15-89U/144 ft	Z-9		31.8	6	25.1	15	40.3	27
W15-218SST/155 ft	Z-9				6.8	1	9.5	22
W15-220U/163 ft	Z-9				15		8	27
W15-19U/175 ft	Z-9				15		23	27
W15-9U/176 ft	Z-9		16.9	6	13.1	15	13.1	27
W15-8U/180 ft	Z-9		not measured		25.9	15	25.9	27
W15-8U/182 ft	Z-9							
W15-220SST/185 ft	Z-9							
W15-7/197 ft	Z-1A							
W15-12/198 ft	Z-1A							
W15-8U/208 ft	Z-1A							
W15-48/217 ft	Z-9							
								3.0

\* based on location (Z-1A/812 or Z-9) of monitoring point specific points may be beyond SVE zone of influence during particular operating configurations

- Z-18 and Z-12 wells offline Oct 06 - Apr 08

- CPT-1A, CPT-5A, and possibly CPT-7A appeared to be beyond SVE zone of influence in Oct-09 based on differential pressure (BH-01/05, p. 6-1)

- CPT-19A, CPT-21A, CPT-28 beyond SVE zone of influence in May 06 based on COC concentrations and airflow modeling based on measured vacuums (BH-01/05, p. 5-1)

Carbon Tetrachloride Rebound Concentrations  
Monitored at 200-PW-1 Soil Vapor Extraction Sites  
October 2004 - December 2005

200-PW-1 (200-ZP-2)		11/17/2004	12/28/2004	01/19/2005	02/24/2005	03/10/2005	03/18/2005	05/05/2005	05/26/2005	06/23/2005	08/04/2005	08/19/2005	09/26/2005	10/25/2005	11/01/2005	11/28/2005	12/20/2005
Location (Well or Probe)	Site	CCl4 (ppmv)	CCl4 (ppmv)	CCl4 (ppmv)	CCl4 (ppmv)	CCl4 (ppmv)	CCl4 (ppmv)	CCl4 (ppmv)	CCl4 (ppmv)	CCl4 (ppmv)	CCl4 (ppmv)	CCl4 (ppmv)	CCl4 (ppmv)	CCl4 (ppmv)	CCl4 (ppmv)	CCl4 (ppmv)	CCl4 (ppmv)
CPT-17/ 10 ft	Z-9	5.5	5.3	6.4	7.1		11.4				2.5	2.1	---	---	1.4	1.2	1.2
CPT-18/ 15 ft	Z-9	0	1.5	3.1	0		0				0	0	0	0		0	0
CPT-4E/ 25 ft	Z-1A							2.4	1.9	1.8	1.5	1.3	0				
CPT-16/ 25 ft	Z-9	1.1	4.4	2.3	2.0		2.0				1.2	1.0	1.2	1.6		1.2	1.4
CPT-32/ 25 ft	Z-1A	0	1.7	2.7	5.5		8.0	8.6	6.6	6.8						1.1	3.4
CPT-30/ 28 ft	Z-1A	0	1.3	1.5	1.6		0	0	0	0				1.2		0	1.1
CPT-13A/ 30 ft	Z-1A	3.0	0	7.1	2.5		8.3	6.6	1.5	3.6	3.9	3.3	3.2	3.6		4.1	3.9
CPT-7A/ 32 ft	Z-1A	1.5	2.2	3.9	2.9		4.4	3.2	2.6	2.4	2.3	2.2	2.1	2.3		2.7	2.2
CPT-27/ 33 ft	Z-9	1.3	8.4	2.2	3.2		2.2				1.2	1.0	1.0	1.8		0	0
CPT-1A/ 35 ft	Z-12	4.7	14.0	13.2	11.3		4.3	6.0	11.1	9.2	6.6	6.6	9.2	17.2		9.1	3.6
CPT-28/ 40 ft	Z-9									5.4							
CPT-33/ 40 ft	Z-18							3.9	1.1	1.9							
CPT-34/ 40 ft	Z-18							3.0	1.1	1.9	2.0	1.7	1.4	1.8			
CPT-21A/ 45 ft	Z-9								7.4	7.9							
CPT-9A/ 50 ft	Z-9	39.4	48.4	48.4	48.4		50.8	50.3	53.9	49.7	50.6	44.0	51.6	52.8		50.9	50.6
CPT-9A/ 60 ft	Z-9	32.4	27.5	29.2	30.6		30.7	11.6	31.8	30.5	18.3	18.0	29.2	25.5		21.2	18.6
CPT-28/ 60 ft	Z-9							68.3	68.0	60.0							
CPT-C3872 / 61 ft	Z-1A	1.1	4.4	5.9	7.6		9.9	11.8	14.6	15.5				4.0		4.3	3.7
CPT-9A/ 64 ft	Z-9	20.1	2.8	26.1	19.8		35.4	31.5	39.1	36.8	38.3	36.6	38.6	38.6		36.9	36.9
CPT-16/ 65 ft	Z-9	3.5	6.7	4.9	5.1		5.2				4.7	4.3	5.5				
CPT-21A/ 65 ft	Z-9	79.9	146	143	161		166	170	153	147	167	153	147	151		137	140
CPT-1A/ 68 ft	Z-12							6.2	13.7	2.0							
CPT-24/ 70 ft	Z-9										3.9	3.6	3.8				
CPT-32/ 70 ft	Z-1A							5.5	3.4	4.5							
W15-219SST/ 70 ft	Z-9																
CPT-18/ 75 ft	Z-9										0	0	0				
W15-82/ 83 ft	Z-9	---	---	---	95.8	30.6	---				1.7	4.9	7.6	8.1		1.4	---
CPT-21A/ 86 ft	Z-9	179	184	191	209		208	205	204	196	223	187	209	208		196	---
CPT-28/ 87 ft	Z-9	231	223	227	245		246	244	238	232	245	216	230	241		219	224
W18-152/ 101 ft	Z-12	10.4	12.3	14.6	13.3		16.0	14.8	13.2	13.4				12.7		14.2	14.5
W15-8U/ 103 ft	Z-9										0	1.3	6.8	10.4		2.6	5.1
W18-167/ 106 ft	Z-1A	---	---	---	37.4		20.4	26.7	20.2	196.0				63.1		174	---
CPT-4F/ 109 ft	Z-1A							7.8	7.7	11.9							
W18-165/ 109 ft	Z-1A	---	---	---	35.2		15.0	22.2	30.8	10.4				65.1		394	220
W15-217/ 114 ft	Z-9	---	---	---	39.6		374				11.2	0	15.9	16.1		1.7	8.4
CPT-24/ 118 ft	Z-9										20.4	14.7	23.9				
W15-220SST/ 118 ft	Z-9										23.1	21.3	25.2				
W18-249/ 130 ft	Z-18	---	51.5	52.2	33.7		64.9	55.3	36.5	36.8				22.5		22.0	12.2
W15-219SST/ 130 ft	Z-9																
W18-248/ 131 ft	Z-1A	---	---	---	70.5		249	173	169	155				67.0		23.1	---
W15-95L/ 144 ft	Z-9	---	---	---	26.7		24.8				2.4	15.9	15.8	15.8		16.7	19.0
W15-219SST/ 155 ft	Z-9																
W15-220L/ 163 ft	Z-9										13.2	12.9	12.0				
W15-219L/ 175 ft	Z-9										0	0	1.9				
W15-9L/ 176 ft	Z-9	---	---	---	2.1		---	---			0	0	1.6	4.0		0	0
W15-84L/ 180 ft	Z-9	22.0	18.0	22.0	16.1	23.0	---				---	---	---	---			
W15-46/ 217 ft	Z-9										0	0	1.9	3.0	---	0	0
(h) Depths to probes measured through existing tubing. 60 ft deep probe confirmed and sampled. The other two depths measured (50 ft and 64 ft) could not be correlated to original depths (70 and 91 ft); these two probes were sampled also.																	
(i) Unable to sample; tubing will be installed																	
(j) Unable to sample before removal of tubing to support cross-well seismic investigation.																	
(k) Sampled on 3/10/05 prior to removal of tubing to support Vista Engineering cross-well seismic investigation.																	
(m) Unable to sample; well in use by Vista Engineering																	
(n) Unable to sample; aboveground tubing needs to be repaired. Repaired and sampled on 11/1/2005.																	
(o) On 10/25/05, well 299-W15-46 sampled at a depth of approximately 172 ft. E-tape could only be advanced to a depth of 173 ft.																	
(p) Unable to pull representative sample.																	

Carbon Tetrachloride Concentrations  
Monitored at 200-PW-1 Passive Soil Vapor Extraction Wells  
October 2004 - December 2005

[illegible]

## **200 AREA UNIT MANAGERS' MEETING SOURCE OPERABLE UNITS AND FACILITIES STATUS**

1200 Jadwin/Rm 1-C1

January 19, 2006

### **SOURCE OPERABLE UNITS STATUS**

#### **200-PW-1, 200-PW-3, & 200-PW-6**

- A TPA change notice (TPA-CN-146) for M-013-00L, was signed by the parties on January 3, 2006 to move the risk assessment activities from the Remedial Investigation (RI) report to the Feasibility Study (FS). (Attachment 8)

#### **200-TW-2 & 200-PW-5 (no change)**

#### **200-CW-1 & 200-CW-3 (no change)**

#### **200-PW-2 & 200-PW-4**

- Incorporation of FH review comments is ongoing for the FS and proposed plan. The decisional draft is slated to go for RL review in February. The documents are on schedule to meet the April, 2006 milestone. Closure plans are undergoing FH review and will be submitted to meet the April, 2006 milestone.

#### **200-CS-1**

- FS on schedule for Draft A submittal on March 31, 2006.
- PP on schedule for Draft A submittal on March 31, 2006.
- Closure Plans on schedule for Draft A submittal on March 31, 2006.
- Ecology noted that a briefing meeting is scheduled for the first week of February.

#### **200-CW-5, CW-2, CW-4, & SC-1 (no change)**

#### **Ecological Risk Assessment (no change)**

#### **200-IS-1 & 200-ST-1**

- Decision logic presented to Ecology for data needs. Ecology is reviewing logic.
- Waiting for Ecology's consultant to provide comments on the classical vs Bayesian approach to gathering data.

#### **200-LW-1/200-LW-2**

- RI Report is on schedule to support the 2/28/2006 TPA Milestone date.

#### **200-MW-1**

- RI Report is on schedule to support the 4/30/2006 TPA Milestone date.
- A TPA change notice (TPA-CN-147) for M-013-00L, was signed by the parties on January 3, 2006 to move the data quality assessment and evaluation, risk assessment, and fate and transport modeling of the 216-A-4 Crib from the RI report to the FS (Attachment 9).
- EPA noted that the potential for a water line leak in the south PUREX area needs to be addressed by DOE-RL.

#### **200-UR-1 (no change)**

#### **200-SW-1/2**

- Phase-1 geophysical investigations involving EM, magnetometer and GPR surveys were completed on the eight, older/inactive burial grounds (~64 acres total) in 200 East and West Areas. An investigations summary report was recently finalized and has been routed for approval signatures
- Historical records research for the 22 Bin 3A and Bin 3B waste sites continues. Records have been assembled for each burial ground, and (where possible) on per trench and per waste package basis. The best, currently-available data is being used to support a mini-DQO process for non-intrusive investigations.
- DQO workshops have been held since mid-November and will likely continue through January. These collaborative workshops include participants from FH, DOE-RL, Ecology and EPA. Progress has been made on DQO steps 1 through 6; current efforts are focused on the final step (sample design – DQO step 7).
- Data Management Plan – annotated outline has been drafted; informal/collaborative review with RL and Ecology task leads will be requested in January.

#### **BC Cribs and Trenches**

- FFS and PP, Draft A, formal comments were transmitted by EPA on 8/4/05. Responses to EPA comments were transmitted 9/8/05.
  - DOE met again with EPA on 11/2/05 to continue discussions regarding remedy selection. Met again 12/13.
  - Letter from RL to EPA offered potential to excavate near-surface contamination under some conditions.
- Status was presented to the HAB on January 11. Path-forward is being developed.

- Surface contamination observed at the 216-B-31 Trench last August resulted in increased survey frequency. Survey last week found additional contamination at the 216-B-33 Trench. Both "events" appear to be related to surface erosion (Attachment 6, Figures 1-4).
- Larry Romine (DOE-RL) stated that funding for BC Cribs was limited and that funding will be sufficient to obtain the ROD. EPA clarified their expectation that the current schedule will be kept and that funding for this project needs to be maintained.

### **200-UW-1**

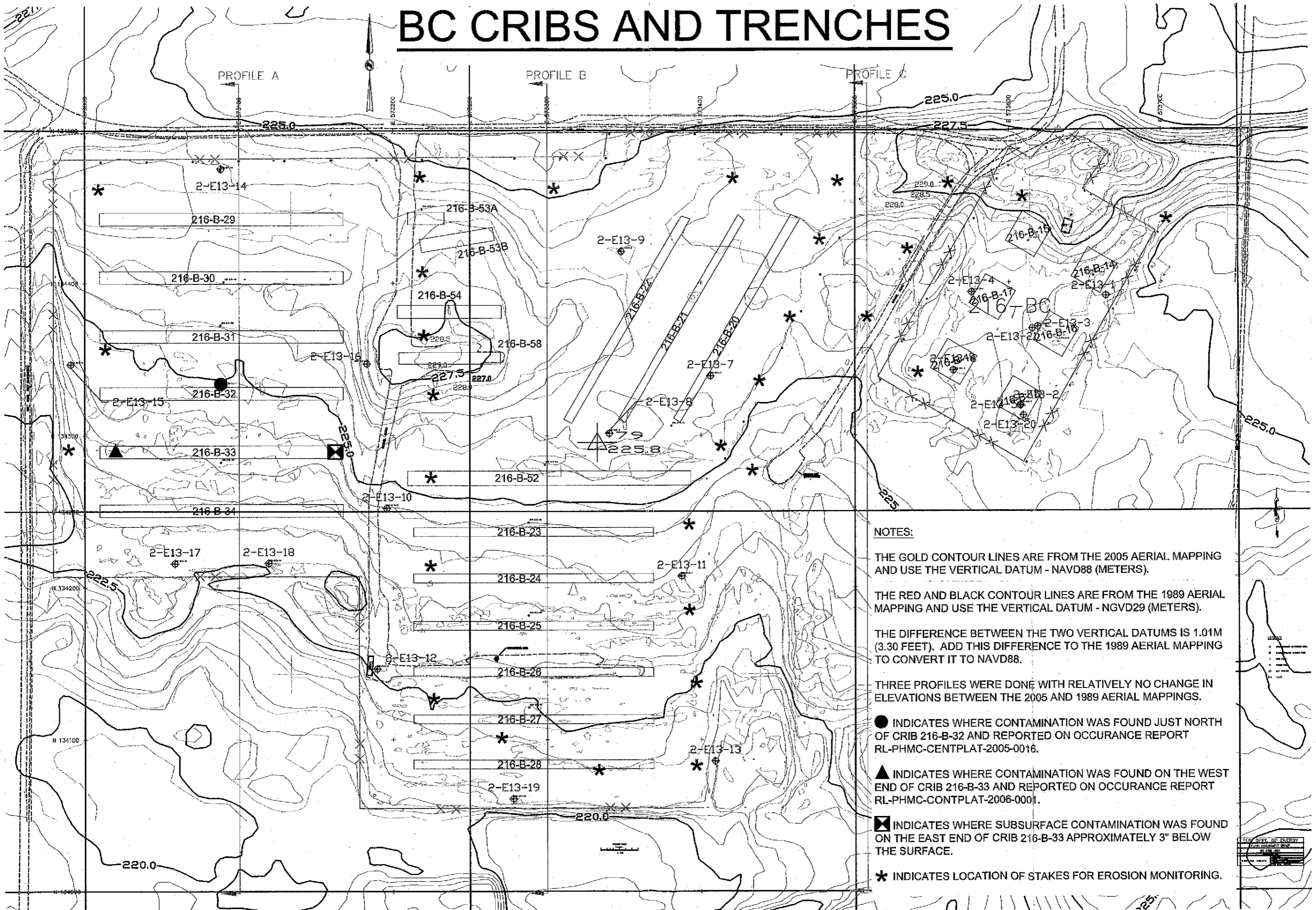
- Time Critical Removal Action (TCRA) RAWP for accelerated removal of piping and interferences associated with installing the proposed barriers on high-risk waste sites 216-U-8 and 216-U-12 was approved by Ecology on 1/3/09. Field work kickoff was held on 1/9/06.
- Tri-party review of Record of Decision (ROD) began on 12/6/05. Delay of approval beyond 1/2/06 compresses RDR/RAWP preparation and approval schedule.
- Draft ROD red line strike out from EPA Region 10 expected week of 1/9/06
- Draft Responsiveness Summaries made available for review on 12/22/05. Tri-party reviews being completed in parallel with Draft ROD.
- Public comment period for TPA Change Request for reclassifying Crib 216-U-12 to a Past Practice unit was completed on 11/21/05.
- A proposed change for 200-U-12 Barrier Design was discussed. Additional discussions are anticipated before placement.
- Haul Road construction into borrow area began on 10/24 but was shut down in early December due to weather. Limited work is being completed as weather permits.
- Ecology stated that they were waiting for DOE to present how they will address treatability investigations, whether through an M-015-00 milestone or the 200-UW-1 OU Record of Decision (ROD). EPA suggested addressing the investigations in the ROD.

### **FACILITIES STATUS**

- **Facility Binning (no change)**
- **Miscellaneous Facility D&D** – Completed demolition of MO-936 on 12/9/05 as a mockup training exercise for D&D crews preparing for D&D of the Plutonium Finishing Plant's 232-Z Building.
- **B-Plant Stack** – Although EPA and WDOH had earlier approved downgrade of this stack to a minor emission unit, it lastly required a significant modification to the Air Operating Permit (AOP) prior to full implementation. The public comment period for the AOP modification ended 11/9/05. Following the public comment period, WDOH sent a letter to RL, dated 1/6/06, denying the downgrade. A path forward to answer the two concerns expressed in WDOH's letter is being developed.

- **PUREX Stack** – A request to downgrade this stack to a minor emission unit is under review by EPA and WDOH. The results of a deep bed filter/aerosol test performed the week of 8/29/05 to provide a current basis for the request were documented in a report that was transmitted to the regulatory agencies at the first of December 2005. One of the concerns expressed by WDOH in their 1/6/06 letter to RL denying a similar request for the B-Plant Stack also affects the downgrade of the PUREX Stack.
- **209E, B-Plant, U-Plant, PUREX and REDOX Ventilation** – Transition from continuous ventilation to intermittent ventilation first discussed with WDOH on 5/19/05. A Notice of Construction (NOC) application for 209E was transmitted to WDOH 10/28/05.

# BC CRIBS AND TRENCHES



**NOTES:**

THE GOLD CONTOUR LINES ARE FROM THE 2005 AERIAL MAPPING AND USE THE VERTICAL DATUM - NAVD88 (METERS).

THE RED AND BLACK CONTOUR LINES ARE FROM THE 1989 AERIAL MAPPING AND USE THE VERTICAL DATUM - NGVD29 (METERS).

THE DIFFERENCE BETWEEN THE TWO VERTICAL DATUMS IS 1.01M (3.30 FEET). ADD THIS DIFFERENCE TO THE 1989 AERIAL MAPPING TO CONVERT IT TO NAVD88.

THREE PROFILES WERE DONE WITH RELATIVELY NO CHANGE IN ELEVATIONS BETWEEN THE 2005 AND 1989 AERIAL MAPPINGS.

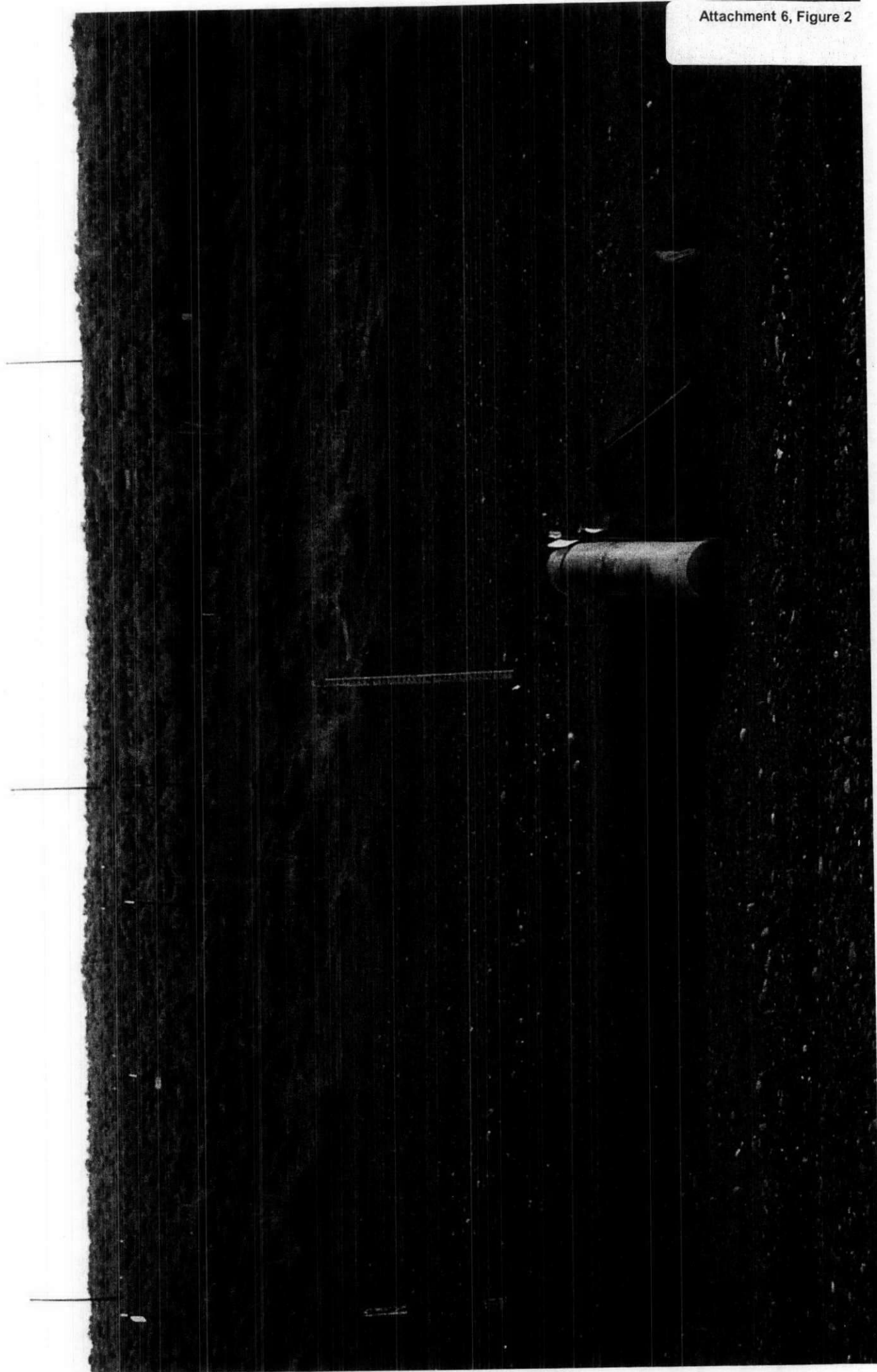
● INDICATES WHERE CONTAMINATION WAS FOUND JUST NORTH OF CRIB 216-B-32 AND REPORTED ON OCCURANCE REPORT RL-PHMC-CENTPLAT-2005-0016.

▲ INDICATES WHERE CONTAMINATION WAS FOUND ON THE WEST END OF CRIB 216-B-33 AND REPORTED ON OCCURANCE REPORT RL-PHMC-CONTPLAT-2006-0001.

■ INDICATES WHERE SUBSURFACE CONTAMINATION WAS FOUND ON THE EAST END OF CRIB 216-B-33 APPROXIMATELY 3" BELOW THE SURFACE.

\* INDICATES LOCATION OF STAKES FOR EROSION MONITORING.









**Issue Resolution Meeting  
Agreements and Issues List  
January 19, 2006  
200 Area Unit Managers' Meeting**

**Issue: Assigning New WIDS Entries (e.g., Pipelines) to OUs – (Ecology)**

Issue Statement: Ecology noted that ORP/CH2M Hill are having pipelines added to WIDS; Ecology feels a strategy is needed for pipelines that are not assigned to soil site OUs.

Issue Actions: Ecology will also discuss the concern with Tank Farms. Parties need to work on a strategy. Specific actions were captured in the Action Item List to support reaching resolution at or shortly following the next UMM.

Issue Status: The MP-14 procedure is scheduled for signature by the parties at the TPA Milestone Review meeting scheduled for January 24, 2006.

Issue Resolution: TBD

**Agreement:** A TPA change notice (TPA-CN-146) for M-013-00L, *DOE/RL-2001-01, Plutonium/Organic-Rich Process Condensate/Process Waste Group Operable Unit RI/FS Work Plan: Includes the 200-PW-1, 200-PW-3, and 200-PW-6 Operable Units*, was signed by the parties on January 3, 2006 to move the risk assessment activities from the Remedial Investigation (RI) report to the Feasibility Study (FS). (Attachment 8)

**Agreement:** A TPA change notice (TPA-CN-147) for M-013-00L, *DOE/RL-2001-65, 200-MW-1 Miscellaneous Waste Group Operable Unit RI/FS Work Plan*, was signed by the parties on January 3, 2006 to move the data quality assessment and evaluation, risk assessment, and fate and transport modeling of the 216-A-4 Crib from the RI report to the FS (Attachment 9).



**Change Notice for Modifying Approved Documents/ Workplans  
In Accordance with the Tri-Party Agreement Action Plan,  
Section 9.0, Documentation and Records**

<b>Change Number</b>	<b>Document Submitted Under</b>	<b>Date:</b>
TPA-CN-146	Tri-Party Agreement Milestone M-013-00L	12/27/05
<b>Document Number and Title:</b> DOE/RL-2001-01, Plutonium/Organic Rich Process Condensate/Process Waste Group Operable Unit RI/FS Work Plan: Includes the 200-PW-1, 200-PW-3, and 200-PW-6 Operable Units		<b>Date Document Last Issued:</b> 04/07/2004
<b>Originator:</b>	<b>Phone:</b>	
V. J. Rohay	373-3803	
<p><b>Description of Change:</b> The work plan is being changed to (1) move risk assessment activities from the Remedial Investigation (RI) report to the Feasibility Study (FS); and (2) allow the remaining dispersed carbon tetrachloride vadose zone plume investigation results from the 218-W-4C Burial Ground to be reported in the FS rather than in the RI report. The U.S. Department of Energy, Richland Operations Office (RL) (B. L. Foley/L. D. Romine) and the U.S. Environmental Protection Agency (EPA) (D. A. Faulk) agree that the proposed change modifies an approved work plan/document and will be processed in accordance with the Tri-Party Agreement Action Plan, Section 9.0, <i>Documentation and Records</i>, and not Chapter 12.0, <i>Changes to the Agreement</i>.</p> <p><b>5.2.6 Remedial Investigation Report:</b> In this section of the work plan, page 5-8, delete "and evaluating risks through a QRA." The affected page is attached.</p> <p><b>5.2.6.1 Data Quality Assessment.</b> In this section of the work plan, p. 5-8, add the following sentence: "The results and DQA for the dispersed carbon tetrachloride vadose zone plume Step II investigation at the 218-W-4C Burial Ground will be included in the FS." The affected page is attached.</p> <p><b>5.2.6.3 Risk Assessment.</b> In this section of the work plan, page 5-10, last sentence in the section, change "...in the RI and FS reports" to "...in the FS report." The affected page is attached.</p> <p><b>5.2.6.3.1 Human Health Risk Assessment:</b> In this section of the work plan, page 5-10, change "RI report" to "FS." The affected page is attached.</p> <p><b>Justification and Impacts of Change:</b></p> <p>A critical aspect of the remedial investigation of the 200-PW-1 OU representative site (216-Z-9 Trench) is being conducted as part of the "Alternatives for Carbon Tetrachloride Source Term Location" project ("DNAPL investigation") under separate contract to DOE-RL. The report on this part of the investigation will be issued as a separate report by the contractor conducting the investigation (anticipated in April 2006). In addition, key data will be collected as part of the 200-PW-1 remedial investigation during drilling of the slant well beneath the 216-Z-9 Trench (data to be available in June 2006). Although the data from both projects will be available for inclusion in the RI report (TPA Milestone M-015-45A, due October 31, 2006), the data will not be available in time to support completing the risk assessment in the RI report. The risk assessment will be incomplete without the DNAPL investigation and Z-9 slant well characterization results. Therefore, the project managers agree that the risk assessment will be included in the FS (TPA Milestone M-015-45B, due September 30, 2007) rather than the RI report. Moving the risk assessment from the RI report to the FS will have no impact on the outcome of the RI/FS process.</p>		



Change Notice for Modifying Approved Documents/ Workplans  
In Accordance with the Tri-Party Agreement Action Plan,  
Section 9.0, Documentation and Records

Justification and Impacts of Change: (continued)

Initial investigation activities have been conducted at the 218-W-4C Burial Ground. However, additional investigation will be conducted following retrieval of the retrievably stored waste (RSW) in trench T-04. In accordance with TPA milestone M-91-40, retrieval of the RSW in trench T-04 will be completed by 12/31/06. Based on this schedule, data from this investigation activity cannot be completed in time for the results to be included in the RI report (TPA Milestone M-015-45A, due October 31, 2006). Moving the data quality assessment and data evaluation results from the RI report to the FS will have no impact on the outcome of the RI/FS process.

Approvals:

 FMR RL Unit Manager*	12/27/05 Date	<input checked="" type="checkbox"/> Approved	<input type="checkbox"/> Disapproved	
 Craig Cameron Lead Regulatory Unit Manager*	1/3/06 Date	<input checked="" type="checkbox"/> Approved	<input type="checkbox"/> Disapproved	

target detection limits for those analytes are provided in Table 2-1 in the DQO SAP (Appendix E).

Soil vapor samples collected during borehole drilling at the representative sites, during borehole drilling for the DNAPL investigation, and during the investigation of the dispersed carbon tetrachloride vadose zone plume will be analyzed for carbon tetrachloride and selected volatile degradation products based on the representative waste site, DNAPL, and dispersed carbon tetrachloride plume DQO processes and as defined in the associated SAPs (Appendices B, C, D, and E of this work plan). The list of analytes, methods, and associated target detection limits are provided in Table B-10 of the representative sites SAP (Appendix B), Table 2-1 in the dispersed carbon tetrachloride plume SAP for the Step I investigation (Appendix C), Table D-5 in the dispersed carbon tetrachloride plume SAP for the Step II investigation (Appendix D), and in Table 2-2 in the SAP for the DNAPL investigation (Appendix E).

Groundwater samples collected during the Step II investigation of the dispersed carbon tetrachloride vadose zone plume will be analyzed for carbon tetrachloride based on the dispersed carbon tetrachloride plume DQO process and as defined in the associated SAP (Appendix D of this work plan). The list of analytes, methods, and associated target detection limits is provided in Table D-6 in the dispersed carbon tetrachloride plume SAP for the Step II investigation (Appendix D).

### 5.2.6 Remedial Investigation Report

This section summarizes data evaluation and interpretation subtasks leading to the preparation of an RI Report. The primary activities include performing a data quality assessment (DQA); evaluating the nature, extent, and concentration of contaminants based on sampling results; assessing contaminant fate and transport; and refining the site conceptual contaminant distribution models.

Deleted: ; and evaluating risks through a QRA

#### 5.2.6.1 Data Quality Assessment

A DQA will be performed on the analytical data to determine if the data are the right type, quality, and quantity to support the intended use. The DQA completes the data life cycle of planning, implementation, and assessment that began with the DQO process. For this task, the data will be examined to determine if they meet the analytical quality criteria outlined in the DQO and to determine if the data are adequate to evaluate the decision rules in the DQO. The results and DQA for the dispersed carbon tetrachloride vadose zone plume Step II investigation at the 218-W-4C Burial Ground will be included in the FS.

#### 5.2.6.2 Data Evaluation and Conceptual Contaminant Distribution Model Refinement

This task will include evaluating the information collected during the investigation. The acquired chemical and radiological data will be compiled, tabulated, and evaluated to gain as much information as possible to satisfy the data needs. Data evaluation tasks may include the following:

3. DOE will follow the required regulatory processes for groundwater remediation (including public participation) to establish the points of compliance and remedial action objectives. It is anticipated that groundwater contamination under the core zone will preclude beneficial use for the foreseeable future, which is at least the period of waste management and institutional controls (150 yr). It is assumed that the tritium and iodine-129 plumes beyond the core zone boundary will exceed the drinking water standards [40 CFR 141, "National Primary Drinking Water Regulations"; 40 CFR 142, "National Primary Drinking Water Regulations Implementation"; 40 CFR 143, "National Secondary Drinking Water Standards"; and DOE Order 5400.5, *Radiation Protection of the Public and the Environment*] for the period of the next 150 to 300 yr (less for the tritium plume). It is expected that other groundwater contaminants will remain below, or be restored to, drinking water levels outside the core zone.
4. No drilling for water use or otherwise will be allowed in the core zone. An intruder scenario will be calculated for in assessing the risk to human health and environment.
5. Waste sites outside the core zone but within the Central Plateau (200 North Area, Gable Mountain Pond, B/C Crib Controlled Area) will be remediated and closed based on an evaluation of multiple land-use scenarios to optimize land use, institutional control cost, and long-term stewardship.
6. Other land-use scenarios (e.g., residential, recreational) may be used for comparison purposes to support decision making, especially for the following:
  - The post-institutional controls period (>150 yr)
  - Sites near the core zone perimeter to analyze opportunities to "shrink the site"
  - Early (precedent-setting) closure/remediation decisions.
7. This framework does not deal with the tank retrieval decision.

These items form the basis for the OU risk assessments to be conducted in the FS report.

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#### 5.2.6.3.1 Human Health Risk Assessment

For the 200-PW-1, 200-PW-3, and 200-PW-6 OUs, a quantitative, baseline human health risk assessment for the representative sites will be prepared, as part of the FS report, to evaluate risk to human receptors from potential exposure to contaminants in accessible surface sediments and shallow subsurface soils. The risk assessment also will evaluate the potential for contaminants currently in the vadose zone beneath the waste sites to impact groundwater in the future. The risk assessment also will evaluate the potential risks associated with the dispersed carbon tetrachloride vadose zone plume and the distribution of DNAPL carbon tetrachloride. Risks from current groundwater contamination will not be evaluated; this evaluation will be conducted as part of the RI/FS process for the groundwater OUs.

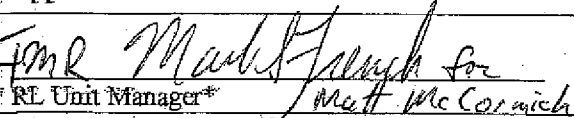

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In the FS report, the risk assessment of the waste sites will focus on the representative sites, because data collected through the RI at these sites are sufficient to allow quantification of risk. The risk assessment will follow the risk guidelines identified through the Risk Framework workshops as documented in the Tri-Parties response to the HAB advice (Klein et al. 2002).

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**Change Notice for Modifying Approved Documents/ Workplans  
In Accordance with the Tri-Party Agreement Action Plan,  
Section 9.0, Documentation and Records**

<b>Change Number</b>	<b>Document Submitted Under Tri-Party Agreement Milestone</b>	<b>Date:</b>	
TPA-CN-147	M-013-00L	12/27/05	
<b>Document Number and Title:</b> DOE/RL-2001-65, 200-MW-1 Miscellaneous Waste Group Operable Unit RI/FS Work Plan		<b>Date Document Last Issued:</b> 06/03/2002	
<b>Originator:</b> M. E. Todd-Robertson		<b>Phone:</b> 373-3920	
<p><b>Description of Change:</b> The work plan is being changed to move Remedial Investigation (RI) Report elements for the 216-A-4 Crib, an identified representative site for the Operable Unit (elements include data quality assessment, data evaluation, risk assessment, and fate and transport modeling), from the RI report to the Feasibility Study (FS).</p> <p>The U.S. Department of Energy, Richland Operations Office (RL) (F. M. Roddy/L. D. Romine) and the U.S. Environmental Protection Agency (EPA) (C. E. Cameron) agree that the proposed change modifies an approved work plan/document and will be processed in accordance with the Tri-Party Agreement Action Plan, Section 9.0, <i>Documentation and Records</i>, and not Chapter 12.0, <i>Changes to the Agreement</i>.</p> <p>5.2.5 Remedial Investigation Report: In this section of the work plan, page 5-6, modify the first sentence from "These activities will be performed as part of the RI report preparation" to "These activities will be performed as part of the RI report preparation for the 216-U-3 French Drain, 216-T-33 Crib, 216-T-13 Trench, and 200-E-4 French Drain. These activities will be performed as part of the feasibility study preparation task for the 216-A-4 Crib." The affected page is attached.</p>			
<p><b>Justification and Impacts of Change:</b></p> <p>RL initiated drilling of a borehole at the 216-A-4 Crib as part of the remedial investigation activities identified in the <i>200-MW-1 Miscellaneous Waste Group Operable Unit RI/FS Work Plan</i> (DOE/RL-2001-65), which was approved by the EPA in July 2002. Drilling commenced in July 2004, when contamination levels exceeded anticipated levels in the borehole at approximately 23 ft bgs. Drilling was stopped and replanning activities were initiated. Drilling activities resumed in March 2005 and again in May 2005; activities were subsequently halted in each effort due again to higher than anticipated contamination levels. Replanning at the 216-A-4 Crib is required prior to completing the remedial investigation at the crib and for the 200-MW-1 Operable Unit. The time involved in gaining a better understanding of the crib, in identifying an appropriate path forward for the characterization, and in obtaining the characterization data does not support completion of the TPA Milestone for the 200-MW-1 RI Report if 216-A-4 data are included. By deferring the 216-A-4 Crib evaluation to the FS, efforts on the FS can proceed, while the RI Report milestone (M-015-44A) can remain intact. Moving the data evaluation, risk assessment, and fate and transport modeling from the RI report to the FS will have no adverse impact on the outcome of the RI/FS process.</p>			
<b>Approvals:</b>			
 RL Unit Manager*	12/27/05 Date	<input checked="" type="checkbox"/> Approved	<input type="checkbox"/> Disapproved
 Lead Regulatory Unit Manager*	1/3/06 Date	<input checked="" type="checkbox"/> Approved	<input type="checkbox"/> Disapproved

## Remedial Investigation/Feasibility Study Process

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contaminant fate and transport; refining the site conceptual models; and evaluating risks through a qualitative risk assessment (QRA). These activities will be performed as part of the RI report preparation task for the 216-U-3 French Drain, 216-T-33 Crib, 216-T-13 Trench, and 200-E-4 French Drain. These activities will be performed as part of the feasibility study preparation task for the 216-A-4 Crib.

**5.3.5.1 Data Quality Assessment.** A DQA will be performed on the analytical data to determine if they are the right type, quality, and quantity to support their intended use. The DQA completes the data life cycle of planning, implementation, and assessment that began with the DQO process. In this task, the data will be examined to see if they meet the analytical quality criteria outlined in the DQO and are adequate to evaluate the decision rules in the DQO.

**5.3.5.2 Data Evaluation and Conceptual Model Refinement.** This task will include evaluating the information collected during the investigation. The nonradiological and radiological data obtained from the boreholes will be compiled, tabulated, and statistically evaluated to gain as much information as possible to satisfy data needs. Data evaluation tasks may include the following:

- Graphically evaluating the data for vertical distribution of contamination within each borehole
- Stratifying the data and computing basic statistical parameters such as mean and standard deviation for individual levels (when sufficient data are available). This evaluation can provide an indication of contaminant distribution
- Constructing contour diagrams and variograms to evaluate spatial correlations within each stratum. This evaluation will indicate whether or not contamination is concentrated in a particular area (e.g., near the influent end for trenches)
- Performing statistical tests on the data to evaluate the presence or absence of contamination. There are many facets to this step, including determining the distribution of the data and selecting the appropriate statistical tests. The initial screening for contamination should evaluate the data with respect to background, by using simple comparisons of an upper bound of the data to background concentrations (e.g., *Model Toxics Control Act* tests), or through more complex comparisons, such as nonparametric hypothesis tests (e.g., Wilcoxon Rank Sum Test). These tests may also compare the data to appropriate cleanup levels.

All of these statistical evaluations will aid in refining the conceptual model for this OU and selecting the remedial alternative. However, because the sites within the 200-MW-1 OU represent point-source types of releases, statistical analysis may not always be possible. Single boreholes are planned at the representative sites, and if the resulting data are not sufficient for statistical analysis, maximum or average concentrations will be used in the data evaluation process.

Data on the soil physical properties will be used to determine the soil type, which will assist in choosing the proper unsaturated hydraulic conductivity/moisture retention curve. Identification

**200 Area Unit Managers' Meeting  
OPEN ACTION ITEMS & TRACKING**

Action #	Action/Subject	Assigned To	Owed To	Assigned Date	Original Due Date	Adjusted Due Date	Date Complete	Status
53	Review original TPA and early change packages for better understanding on requirements for 2008 M-015 milestone; mock up change package to provide clarification of requirements to meet 2008 milestone to be included in next modification to M-015.	All - Williams	All	02/17/05	TBD	TBD		Clarification waiting for next M-015 change pkg.
53a	Provide clarification wording for M-015 completion criteria at next meeting. Discuss TPA Milestone wording for M-15-00C Draft A of RI/FS.	All - Williams	All	04/21/05	07/30/05	TBD		FH - Williams working on change package
60	Finalize Central Plateau Facility Binning Report, DOE/RL-2005-54	RL/FH - Romine	EPA/Ecology	04/21/05	05/19/05	TBD		EPA wants buildings in TPA before they will sign binning report.
64	Determine solution to adding pipelines not associated with an OU into WIDS with only a TBD in the OU field versus needing to link them to Waste Management Areas (WMAs).	All - Stults	All	08/18/05	09/15/05	TBD		MP-14 procedure to be signed 1/24/06.
64a	Discuss with ORP (Janet Badden of CH2M) drafting necessary TPA changes.	Ecology - Stults	All	08/18/05	09/15/05	01/13/06		See action 64 status
65	Schedule 200-PO-1 Regulatory Path forward meeting with Ecology	DOE - Tortoso	Ecology	9/15/2005	10/20/2005	TBD		Waiting on Ecology legal
65a	Ecology will send place holder letter to DOE	Ecology-Price	RL	12/15/2005	1/19/2006			Waiting on Ecology legal
66	Schedule meeting on 200-UP-1 RI Report Historical Data Analysis & COPCs	Ecology - Price	RL	10/20/05	11/17/05			Jeannie will bring discuss mtg. with John Price.
68	200-UP-1 Ecology set up meeting to discuss rebound study	Ecology - Zelma	RL/FH	12/15/05	01/19/06			Scheduled
69	200-UP-1 DOE provide projected end dates with 2 year monitoring sampling	DOE - Tortoso	Ecology	12/15/05	01/19/06			Mark Byrnes can email to John Price
70	200-ZP-1 meeting to discuss bioremediation test plan viability	FH - Byrnes	EPA/Ecology	12/15/05	01/19/06		1/9/2006	Complete

**DISTRIBUTION  
UNIT MANAGERS' MEETING,  
200 AREA GROUNDWATER SOURCE OPERABLE UNITS**

DOE/RL

Steve Bertness	A6-39
Bryan Foley	A6-38
Larry Romine	RMIS
Arlene Tortoso	RMIS

EPA

Craig Cameron	B1-46
---------------	-------

Ecology

Brenda Jentzen	RMIS
Tina Masterson-Heggen	H0-57
John Price	H0-57
Jennie Stults	H0-57
Jean Vanni	H0-57

FH

Lanny Dusek	RMIS
Gloria Cummins	RMIS
Bruce Ford	RMIS
Jane Borghese	E6-35
Mark Byrnes	RMIS
Virginia Rohay	RMIS
L. Craig Swanson	RMIS
Mary Todd-Robertson	E6-35

CHG

Curt Wittreich	RMIS
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PNNL

Stuart Luttrell	K6-96
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Administrative Record (2)	H6-08
Correspondence Control	A3-01

Please inform Dee Goodson – FH (373-4456)  
of deletions or additions to the distribution list.